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<b>14. ABSTRACT</b> This study considers recruiters as a form of salesperson and uses the extensive literature base in that area to examine issues related to the structure of recruiter roles and various forms of monetary and non-monetary compensation as drivers of effort and performance. A comprehensive model is constructed to test these factors. The findings stress the importance of three factors in particular (perceptions of fairness in reward distribution, perceptions of job security, and a salesperson's intrinsic motivation level) as key elements linking motivation, performance, and job satisfaction. Implications for enhancing Navy recruiter performance are considered.		
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## FINAL TECHNICAL REPORT

GRANT #: N00014-01-1-0917

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INSTITUTION: The University of Mississippi

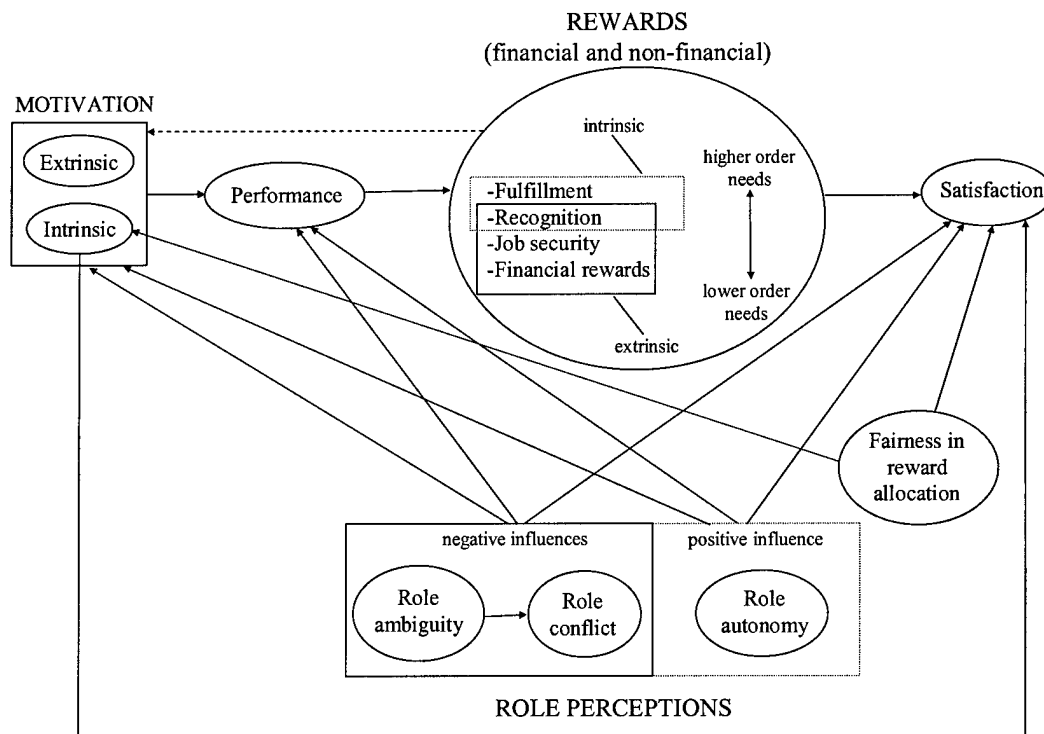
GRANT TITLE: "Role Structure, Non-monetary Compensation, and Team Incentives as Motivators of Salesperson Performance"

AWARD PERIOD: 1 July 2001 – 30 September 2002

OBJECTIVE: To explore a range of role (job) structure issues and compensation alternatives as they relate to the enhancement of navy recruiter performance.

APPROACH: The approach taken here involved a survey of a large, private sector sales organization. Using a combination of established and newly developed scale measures, a survey was distributed to a sample of approximately 300 members of this organization with 144 viable responses returned. The measures assessed the interrelationship of the role- and incentive-related factors depicted in [Figure 1](#). Lisrel-type structural equation modeling and multiple regression analysis will be used to analyze the resulting data.

**Figure 1: General Research Model**



#### ACCOMPLISHMENTS (throughout award period):

The model was tested through a survey-based methodology utilizing a combination of existing and newly developed scale measures. For the measures developed for this study (e.g., fulfillment, recognition, job security, financial rewards), item pools were developed through consultation with experts in related fields and a review of relevant literature. All measures were 7-point Likert or semantic differential scales.

In order to test the model, the survey was distributed to 298 sales managers of a national car rental chain in the United States. These managers had bottom line responsibility for the operations of their office. Each manager had a unique and non-overlapping sales territory. Surveys were mailed through internal corporate channels with both a cover letter from a senior manager requesting participation and a letter from the researcher insuring confidentiality and explaining the broad purpose of the study. Completed survey instruments were returned directly to the researcher. There were 144 usable responses received, representing a 48% response rate. Survey scale measures were purified and summed scores were formed from the final item sets.

The data were analyzed using path analysis and the Amos 4.0 system (Arbuckle and Wothke 1999). All hypotheses (depicted in Figure 1 and presented more explicitly in Table 1) were tested simultaneously using this method. These analyses used the maximum likelihood method of parameter estimation and all analyses were performed on the variance – covariance matrix.

The overall structural model showed generally acceptable fit statistics. While the chi-square statistic was significant, indicating poor model fit, this result is typical of most large structural equation models (Hatcher 1994). More meaningful fit statistics supported acceptance of the overall model (GFI = .951, CFI = .965, Tucker-Lewis Index = .918)<sup>1</sup>. The overall R<sup>2</sup> value (variance explained) on the Satisfaction dependent measure was an impressive .590. That suggests the model's antecedent factors had a high degree of explanatory power on the ultimate variable of interest.

The individual model paths (each representing a research hypothesis) are summarized in Table 1. Results from the study were mixed, with support generally centered around a few key variables.

**Table 1: Hypotheses and Results**

	Hypothesis	Standardized Regression Weight	P value	Significance Level <sup>(1)</sup>
H <sub>1a</sub>	A salesperson's natural <i>extrinsic</i> motivation will be positively related to performance.	-.052	.505	NS
H <sub>1b</sub>	A salesperson's natural <i>intrinsic</i> motivation will be positively related to performance.	.265	.001	****
H <sub>2a</sub>	Salesperson performance will be positively related to feelings of fulfillment (an intrinsic reward).	-.082	.332	NS
H <sub>2b</sub>	Salesperson performance will be positively related to feelings of recognition (an intrinsic reward).	.106	.200	NS
H <sub>2c</sub>	Salesperson performance will be positively related to a sense of job security (an extrinsic reward).	.021	.773	NS
H <sub>2d</sub>	Salesperson performance will be positively related to financial rewards (an intrinsic reward).	.129	.119	NS
H <sub>3a</sub>	Fulfillment will be positively related to salesperson satisfaction.	-.078	.216	NS
H <sub>3b</sub>	Perceived recognition will be positively related to salesperson satisfaction.	-.015	.816	NS

<sup>1</sup> All three tests have generally accepted minimum standards of .900 to indicate model acceptability.

H <sub>3c</sub>	Perceived job security will be positively related to salesperson satisfaction.	.118	.076	*
H <sub>3d</sub>	Financial rewards will be positively related to salesperson satisfaction.	-.116	.060	*
H <sub>4a</sub>	Role ambiguity will be negatively related to <i>extrinsic</i> salesperson motivation.	-.060	.587	NS
H <sub>4b</sub>	Role ambiguity will be negatively related to <i>intrinsic</i> salesperson motivation.	-.079	.445	NS
H <sub>4c</sub>	Role ambiguity will be negatively related to salesperson performance.	-.130	.194	NS
H <sub>4d</sub>	Role ambiguity will be negatively related to salesperson job satisfaction.	-.037	.620	NS
H <sub>4e</sub>	Role ambiguity will be negatively related to feelings of job security.	-.291	.001	****
H <sub>5a</sub>	Role conflict will be negatively related to <i>extrinsic</i> salesperson motivation.	.195	.031	**
H <sub>5b</sub>	Role conflict will be negatively related to <i>intrinsic</i> salesperson motivation.	-.132	.145	NS
H <sub>5c</sub>	Role conflict will be negatively related to salesperson performance.	.011	.898	NS
H <sub>5d</sub>	Role conflict will be negatively related to salesperson job satisfaction.	-.032	.610	NS
H <sub>6a</sub>	Role autonomy will be positively related to <i>extrinsic</i> salesperson motivation.	-.001	.995	NS
H <sub>6b</sub>	Role autonomy will be positively related to <i>intrinsic</i> salesperson motivation.	.025	.799	NS
H <sub>6c</sub>	Role autonomy will be positively related to salesperson performance.	.200	.033	**
H <sub>6d</sub>	Role autonomy will be positively related to salesperson job satisfaction.	.188	.009	***
H <sub>6e</sub>	Role autonomy will be positively related to feelings of job security.	.324	.000	****
H <sub>7</sub>	Role ambiguity will be positively related to role conflict.	.417	.000	****
H <sub>8a</sub>	Perceived fairness in reward allocation will be positively related to salesperson job satisfaction.	.429	.000	****
H <sub>8b</sub>	Perceived fairness in reward allocation will be positively related to intrinsic motivation.	.240	.007	***
H <sub>9a</sub>	Intrinsic motivation will be positively related to salesperson job satisfaction.	.293	.000	****
H <sub>9b</sub>	Intrinsic motivation will be positively related to feelings of fulfillment.	.310	.000	****

<sup>(1)</sup> significance levels

\*  $p < .10$

\*\*  $p < .05$

\*\*\*  $p < .01$

\*\*\*\*  $p < .001$

### CONCLUSIONS:

Clearly, the nature of salesperson (or recruiter) motivation, performance, and satisfaction is a complicated web of factors. Perhaps most surprising was the lack of support found for the majority of the hypotheses pertaining to the central "reward" elements of the model. It was hypothesized that these factors would mediate the relationships between performance and salesperson satisfaction. This linkage has been presented in past research. Of these elements, performance had no direct connection to any of the four dimensions of rewards. Two elements of rewards, perceived job security and financial rewards, did have marginally significant influence on satisfaction although the relationship between financial rewards and satisfaction was actually in the opposite direction from that hypothesized. This reinforces the notion that the best-performing workers are not motivated purely (or even to a great extent) by financial incentives.

Among the role factors, role autonomy (the extent to which individuals can exercise independent thought and action in performing their jobs) has the greatest influence. Role autonomy was positively linked to salesperson performance, job satisfaction, and feelings of job security.

Perceived fairness in reward allocation proved to be a highly influential factor. The factor reflects the extent to which individuals feel they have been compensated fairly relative to their peers by the organization's management. Perceived fairness in reward allocation was positively linked to job satisfaction and to intrinsic motivation. That is, those workers who felt they were being rewarded fairly exhibited higher levels of natural motivation in the workplace. Intrinsic motivation (the internal drive to do well at one's job) was a much more powerful force than extrinsic motivation (the extent to which workers are motivated purely by anticipated financial rewards). Intrinsic motivation was linked to salesperson job satisfaction and to a sense of fulfillment, a so-called "higher order human need."

In all, this project generated several provocative insights that can be used to enhance the Navy recruiter situation and other sales organizations. Specifically, the results suggest that granting higher levels of job autonomy (the latitude to determine exactly how the goals for a certain position will be achieved), identifying individuals whose psychological profiles indicate a tendency towards intrinsic (rather than extrinsic) motivation, and enforcing the fairness of the distribution process for whatever rewards are available (perhaps through the clear statement of evaluation criteria and scoring), should enhance the motivation, performance, and satisfaction of the Navy recruiter force.

### SIGNIFICANCE:

This research is significant on several fronts. First, it represents the first attempt to offer a full-scale empirical assessment of a seminal piece in the Marketing subfield of sales force research (Walker, Churchill and Ford 1977). Walker et al. attempted to delineate a host of factors that should influence the performance and motivation of the salesperson. While elements of this model have been previously tested, this study represents the most comprehensive effort to evaluate their entire nomological network. Further, this work identifies several interesting dimensions or "levers" that may be used to enhance the effectiveness and performance of any sales force.

### PATENT INFORMATION:

- N/A

### AWARD INFORMATION:

- Awarded "Outstanding Junior Faculty Researcher of the Year," May 2002, The University of Mississippi

REFEREED PUBLICATIONS (for total award period):

- None as yet from this project since data analysis was recently completed. Several publications are planned in the future from these findings.

BOOK CHAPTERS, SUBMISSIONS, ABSTRACTS AND OTHER PUBLICATIONS (for total award period)

- none as yet.

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Arbuckle, James L. and Werner Wothke (1999), *Amos 4.0 User's Guide*, Chicago, IL: SmallWaters Corporation.

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Walker, Orville C., Gilbert A. Churchill, Jr., and Neil M. Ford (1977), "Motivation and Performance in Industrial Selling: Present Knowledge and Needed Research," *Journal of Marketing Research*, 14 (May), 156-168.